

## Chapter 2 - Regulatory Requirements

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Construction site stormwater runoff is regulated on the local level and at the State level.

- The Puget Sound Water Quality Management Plan requires communities in the Puget Sound Basin to adopt ordinances implementing controls for new development and redevelopment, including measures for control of erosion, sedimentation, and other pollutants on construction sites.
- Phase I municipal National Pollutant Discharge Elimination System (NPDES) permits require large urban cities and counties to adopt ordinances implementing controls for new development and redevelopment, including measures for control of erosion, sedimentation, and other pollutants on construction sites.
- The Phase II NPDES municipal permit program will require many municipalities throughout the state to adopt ordinances implementing controls for new development and redevelopment, including measures for control of erosion, sedimentation, and other pollutants on construction sites.
- Construction projects must apply for coverage under the NPDES General Permit for Stormwater Associated with Construction Activities if
  - the project results in the disturbance of ~~five-one acres or~~ more acres of land area, including clearing, grading, and excavation activities, **and**
  - the project discharges stormwater from the site into a surface water or discharge to a storm drain system that discharges to a surface water.
- Some construction projects may require an individual NPDES permit.
- ~~Beginning in 2003, coverage under the General Permit will be required for construction sites that result in the disturbance of one acre or more of land.~~

### 2.1 Requirements Under the Puget Sound Water Quality Management Plan

The Puget Sound Water Quality Management Plan directs the approximately 120 cities and counties in the Puget Sound Basin to adopt and implement programs to prevent stormwater pollution and to enhance water quality within the municipal jurisdictions. The plan requires the municipalities to adopt ordinances implementing controls for new development and redevelopment, including measures for control of erosion, sedimentation, and other pollutants on construction sites. These ordinances must include all of the Minimum Requirements contained in Volume I of the Stormwater Management Manual, or requirements

determined by the Department of Ecology (Ecology) to be technically equivalent.

Minimum Requirement #2, Construction Stormwater Pollution Prevention, requires that new development and redevelopment projects address stormwater pollution prevention during construction. Construction projects must consider all of the 12 elements of construction stormwater pollution prevention and develop controls for all of the elements that pertain to the project site.

Projects that add or replace 2,000 square feet or more of impervious surface or clear more than 7,000 square feet must prepare a Construction Stormwater Pollution Prevention Plan (SWPPP) that is reviewed by the Plan Approval Authority of the local government. The Construction SWPPP must contain sufficient information to satisfy the Plan Approval Authority that the problems of pollution have been adequately addressed for the proposed project. Projects that add or replace less than 2,000 square feet of impervious surface or clearing projects of less than 7,000 square feet are not required to prepare a Construction SWPPP. However, these projects must consider all of the 12 elements of Construction Stormwater Pollution Prevention and develop controls for all elements that pertain to the project site.

## **2.2 NPDES Stormwater Permits**

### *Background*

The Federal Clean Water Act (FCWA, 1972, and later modifications, 1977, 1981, and 1987) established water quality goals for the navigable (surface) waters of the United States. One of the mechanisms for achieving the goals of the Clean Water Act is the NPDES permit program, administered by the U.S. Environmental Protection Agency (EPA). EPA has delegated responsibility to administer the NPDES permit program to the state of Washington on the basis of Chapter 90.48 RCW, which defines Ecology's authority and obligations in administering the wastewater discharge permit program.

Regulations adopted by Washington State include procedures for issuing permits (Chapter 173-220 WAC), water quality criteria for surface and ground waters (Chapters 173-201A and 200 WAC), and sediment management standards (Chapter 173-204 WAC). These regulations require that a permit be issued before discharge of wastewater to waters of the state is allowed. The regulations also establish the basis for effluent limitations and other requirements included in permits.

### *Stormwater*

In 1987, Congress added section 402(p) to the Clean Water Act to establish a comprehensive framework for addressing municipal and industrial stormwater discharges under the NPDES permit program. Section 402(p)(4) of the Clean Water Act clarifies the requirement for EPA and delegated state agencies to issue NPDES permits for stormwater discharges associated with industrial activity. The federal regulations require an NPDES permit for listed industrial facilities and those

construction activities which will disturb five or more acres of land, that discharge "stormwater associated with industrial activities" directly to surface waters, or indirectly through municipal storm drains. The regulations include a definition of "stormwater associated with industrial activity," and a listing of application requirements for stormwater permits.

The first implementation phase of the 1987 Clean Water Act amendments (Phase I) also requires NPDES permits for municipal stormwater discharges from municipalities that:

- Have a separate storm sewer system that discharges to surface water or to drainage ditches that discharge to surface water; and
- Have a population served by the storm sewer system that is greater than 100,000 people.

The final Phase II stormwater regulations were issued by EPA on December 8, 1999. The Phase II regulation requires NPDES municipal stormwater permits for all municipalities within census urbanized areas. For municipalities outside of census urbanized areas, with a population exceeding 10,000 and a population density greater than 1,000 per square mile, Ecology must develop criteria to determine whether an NPDES permit is necessary. Implementation of municipal stormwater programs through Phase II permits will be phased in by 2008.

Census urbanized areas are defined as a central place (or places) and the adjacent densely settled surrounding area that together have a minimum population of 50,000 and a minimum average density of 1,000 per square mile.

Both the Phase I and Phase II NPDES permit programs require permitted municipalities to adopt ordinances implementing controls for new development and redevelopment, including measures for control of erosion, sedimentation, and other pollutants on construction sites. Under the Phase I NPDES permit, these ordinances must include all of the Minimum Requirements contained in Volume I of the Stormwater Management Manual, or requirements determined by the Department of Ecology to be technically equivalent. Ecology expects to include similar requirements in the Phase II permit, which must be issued by December 2002.

Designated industries that discharge stormwater are required to apply for coverage under the Baseline General Permit for Stormwater Discharges Associated with Industrial Activities (the Industrial General Permit). Facilities that only discharge stormwater runoff from administrative building roofs and employee parking lots are not required to obtain permit coverage. Industrial facilities may qualify for a waiver (conditional exemption) if they can demonstrate that there will be no exposure of industrial materials and activities to stormwater.

### 2.2.1 The General Permit for Stormwater Discharges Associated with Construction Activities

The goal of the General Permit for Stormwater Discharges Associated with Construction Activities (the Construction General Permit) is to minimize harm to surface waters from construction activities.

Coverage under the Construction General Permit is required for any clearing, grading, or excavating that will disturb five acres or more one or more acres of land area and that will discharge stormwater from the site into surface water(s), or into storm drainage systems that discharge to a surface water.

The permit is also required for ~~Parcels~~ projects or construction activities that disturb less than ~~five one~~ acres ~~in of~~ land area, if the project or activity is ~~that are~~ part of a ~~larger~~ common plan of development or sale that will ultimately disturb ~~totaling five one or more~~ acres of land area. The "common plan" in a common plan of development or sale is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot.

The permit is not required for routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site. For example, re-grading a dirt road or cleaning out a roadside drainage ditch to maintain its "as built" state does not require permit coverage.

~~or more are also required to obtain a permit. Under the Phase II NPDES regulations, the acreage trigger will be reduced from five acres to one acre in March 2003.~~

~~For construction of subdivisions, the five-acre threshold that triggers the permit requirements applies only to land that is disturbed by the landowner, the landowner's representative, or a contractor to the landowner. If the owner or the owner's representative or contractor is only installing roads and utilities, only land disturbed for that construction should be calculated to determine whether the five-acre threshold would be exceeded. Land to be disturbed by independent contractors who purchase lots from the owner should not be considered when deciding the owner's responsibilities, unless the individual lots are disturbed prior to being sold; for example by clearing and grading. However, if an independent contractor has purchased contiguous individual lots that will disturb a total of five acres or more, the contractor must obtain coverage under the Construction General Permit.~~

Any construction activity discharging stormwater that Ecology and/or the Plan Approval Authority of the local government determine to be a “significant contributor of pollutants” to waters of the state may [also](#) be required to [apply for and obtain](#) ~~have~~ permit coverage, regardless of project size.

**Applicants for coverage under the Construction General Permit must do the following:**

*File a Notice of Intent (application for coverage)*

The permit application, called a Notice of Intent (NOI), shall be submitted to Ecology before the date of the first public notice and at least 38 days prior to the start of construction.

*Publish a Public Notice*

At the time of application, the applicant must publish a notice that they are seeking coverage under Ecology’s general stormwater permit for construction activities. This notice must be published at least once each week for two consecutive weeks in a single newspaper that has general circulation in the county in which the construction is to take place. Refer to the NOI instructions for public notice language requirements. State law requires a 30-day public comment period prior to permit coverage; therefore, permit coverage will not be granted sooner than 31 days after the date of the last public notice.

*Prepare a Stormwater Pollution Prevention Plan*

Permit coverage will not be granted until the permittee has indicated completion of the SWPPP or certified that development of a SWPPP in accordance with Special Condition S9 of the permit will occur prior to the commencement of construction. SWPPPs are not submitted to Ecology but retained on site or within reasonable access to the site to be made available to Ecology and local government agencies upon request.

Applicants who discharge stormwater associated with construction activity to a storm drain operated by any of the following municipalities are also required to submit a copy of the NOI to the municipality:

Seattle, King County, Snohomish County, Tacoma, Pierce County, Clark County, ~~Spokane County~~, and Washington Department of Transportation (WSDOT), if discharge occurs within these permit areas.

Construction activities that are not required to apply for coverage include:

- Construction activities that discharge stormwater only to the ground and have no point source discharge to surface water or a municipal storm sewer at any time during construction;

- Any part of a facility with a stormwater discharge resulting from remedial action under an order or consent decree;
- Any emergency construction activity required to protect public health and safety; and
- Any construction activity for routine maintenance of existing facilities to maintain original line and grade, or hydraulic capacity.

Facilities excluded from coverage include:

- Nonpoint source silvicultural activities;
- Construction projects that are federally owned or operated or are on tribal land, or discharge stormwater directly to tribal waters with EPA approved water quality standards;
- Stormwater discharges that originate from the site after construction has been completed and the site has undergone final stabilization. Final stabilization means the completion of all soil disturbing activities at the site and the establishment of a permanent vegetative cover, or equivalent permanent stabilization measures such as riprap, gabions, or geotextiles which will prevent erosion; and
- Any facility covered under an existing NPDES individual or general permit in which stormwater management or treatment requirements or both are included for all stormwater discharges associated with construction activity.

### **2.2.2 Construction Stormwater Pollution Prevention Plan**

Facilities covered under the Construction General Permit must prepare and implement a Construction SWPPP. The Construction SWPPP must consist of and make provisions for:

- Erosion prevention and sediment control, and
- Control of other pollutants

The Construction SWPPP must describe construction practices, stabilization techniques, and structural BMPs that are to be implemented to prevent erosion and minimize sediment transport. Erosion prevention, sediment control, and pollution control BMP guidance and design criteria are provided in Chapter 3 and Chapter 4 of this volume.

BMPs shall be inspected, maintained, and repaired as needed to assure continued performance of their intended function. Reports summarizing the scope of inspections, the personnel conducting the inspection, the date(s) of the inspection, major observations relating to the implementation of the Construction SWPPP, and actions taken as a result of these inspections shall be prepared and retained as part of the Construction SWPPP.

## 2.3 Water Quality Standards

### 2.3.1 Surface Water Quality Standards

“Numerical” water quality criteria are numerical values set forth in the state of Washington's Water Quality Standards for Surface Waters (Chapter 173-201A WAC). They specify the levels of pollutants allowed in a receiving water that are protective of aquatic life.

EPA has promulgated 91 numeric water quality criteria for the protection of human health that are applicable to Washington State (EPA 1992). These criteria are designed to protect humans from cancer and other disease and are primarily applicable to fish and shellfish consumption and drinking water obtained from surface waters.

In addition to numerical criteria, "narrative" water quality criteria (WAC 173-201A-030, -040, and -050) limit concentrations of toxic, radioactive, or deleterious material below those that have the potential to adversely affect characteristic water uses, cause acute or chronic toxicity to biota, impair aesthetic values, or adversely affect human health. Narrative criteria protect the specific beneficial uses of fresh (WAC 173-201A-130) and marine (WAC 173-201A-140) waters in the state of Washington.

Pollutants that might be expected in the discharge from construction sites are turbidity, pH, and petroleum products. The surface water quality standards for turbidity and pH for Class AA (extraordinary) waters are:

Turbidity: shall not exceed 5 nephelometric turbidity units (NTU) over background turbidity when the background turbidity is 50 NTU or less, or have more than a 10 percent increase in turbidity when the background turbidity is more than 50 NTU.

pH: shall be within the range of 6.5 to 8.5 (freshwater) or 7.0 to 8.5 (marine water) with a human-caused variation within a range of less than 0.2 units. For Class A and lower water classifications, the permissible induced increase is 0.5 units.

Although there is no specific surface or ground water quality standard for petroleum products, the narrative surface water quality criteria prohibits any visible sheen [in a discharge to surface water](#).

The ground water quality criteria require protection from contamination in order to support the beneficial uses of the ground water, such as for drinking water. Therefore, the primary water quality consideration for stormwater discharges to ground water from construction sites are the control of contaminants other than sediment. Sediment control is

necessary to protect permanent infiltration facilities from clogging during the construction phase.

### 2.3.2 Compliance With Standards

Stormwater discharges associated with construction activity are subject to applicable state water quality standards. The Construction [Stormwater](#) General Permit does not authorize the violation of those standards. Ecology expects that the selection and implementation of appropriate BMPs outlined in this volume of the SWMM or equivalent manuals will result in compliance with [water quality](#) standards ~~for stormwater discharges from construction sites~~. Proper implementation and maintenance of ~~these controls appropriate BMPs~~ is critical to adequately control any adverse water quality impacts from construction activity.

Stormwater discharges from construction sites ~~must~~[shall](#) ~~comply not cause or contribute to violations of with~~ Washington State's surface water quality standards (Chapter 173-201A WAC), sediment management standards (Chapter 173-204 WAC), ground water quality standards (Chapter 173-200 WAC), and human health based criteria in the National Toxics Rule (Federal Register, Vol. 57, No. 246, Dec. 22, 1992, pages 60848-60923).

~~Compliance with standards means:~~

- ~~• An adequate SWPPP has been prepared and fully implemented;~~
- ~~• The SWPPP and its implementation are adequate to prevent the discharge of toxic pollutants, floating materials, and sediment; and~~
- ~~• All known, available and reasonable means (AKART) have been taken to prevent the discharge of settleable solids and to reduce turbidity in direct and indirect discharges to surface waters.~~

~~In determining compliance, Ecology will consider:~~

- ~~• Weather conditions as related to design storms for BMPs;~~
- ~~• Available dilution and background conditions in the receiving water if the SWPPP and its implementation are determined adequate. Mixing zones may be allowed through individual NPDES permits per WAC 173-201A-100; and~~
- ~~• Other requirements of Chapters 173-200 WAC, 173-201A WAC, and 173-204 WAC.~~
- ~~• The point of compliance for the water quality standards is in the surface receiving water body or in the ground water.~~